

Application No. 10/036,902
Amendment dated June 9, 2004
Reply to Office Action of March 9, 2004

REMARKS/ARGUMENTS

Responsive to the Official Action mailed March 9, 2004, applicant has further revised the claims of her application in an earnest effort to place this case in condition for allowance. Specifically, independent claims 1, 6, and 8 have been amended. Reconsideration is respectfully requested.

In the Action, the Examiner has rejected the pending claims under 35 U.S.C. §102 and §103, with reliance upon U.S. Patent No. 5,874,067, to Lucas et al., with further reliance upon U.S. Patent No. 4,839,808, to Jungermann et al., and U.S. Patent No. 5,710,214, to Chou et al. However, it is respectfully maintained that these references, even when combined, do not teach or suggest applicant's claimed invention, which has found particular utility as a *dispersing or transfer layer* of a disposable absorbent product, with the composition formulated to desirably effect a *pH shift* to desirably protonate ammonia into a non-volatile ammonium ion. By the formation of the dispersing layer of an absorbent article with the present odor-abating composition, *contact with the wearer's skin is avoided*, in clear distinction from the principal Lucas et al. reference, which is specifically limited in its teachings to application of the disclosed composition *to the user's skin*.

Notably, the principal Lucas et al. reference fails to teach or suggest the importance of effecting a pH shift, in accordance with the present invention. Rather, the composition disclosed in Lucas et al. particularly contemplates the inclusion of *cyclodextrin*, which, as noted at page 2 of applicant's specification, is considered to

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be a *sequesterant*, that is, a composition which relies upon "capturing" ammonia for effectiveness. As specifically noted:

If the structure of the sequesterant becomes occluded or contaminated by the presence of the complex milieu of proteins and salts found in urine, functionality is significantly degraded.

The contemplated cyclodextrin of the Lucas reference is referred to as a clathrate. These are known to have a hollow internal core whereby chemicals can be easily trapped. The use of cyclodextrins would hinder performance of the present odor-abating chemistry if any of the acid carrier or the diphenyl ether seeped into the cyclodextrin rings.

As noted, applicant's claims have been particularly revised to specify that the present composition is incorporated in a dispersing layer of a disposable absorbent article, such as illustrated in Figure 1, which shows one or more dispersing layers positioned between the outer proximal surface of a hygiene product, and the associated fibrous core, and consistent with test samples of the present product, that were substituted for the transfer layer of a "Serenity" brand adult incontinent pant (see specification at page 8).

In the Action, the Examiner acknowledges:

Lucas does not disclose the step of forming the treated base substrate material into a component material after applying the odor control compound.

The Examiner then asserts that it would merely be obvious to "apply the compound of Lucas to a substrate to be subsequently formed into a disposable sanitary product."

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Applicant must respectfully disagree with this assertion. A careful study of the Lucas et al. reference shows that its teachings are *expressly limited to skin treatment via a wipe*. As stated at column 2, lines 5 *et seq.* of Lucas et al., it is stated that:

The present invention encompasses a method of controlling malodors on hyman skin comprising *the application to the human skin* of a composition

At column 2, line 25, Lucas et al. goes on to state:

The compositions can be applied directly as a spray, poured from a bottle and applied by hand, or applied via a pre-formed wipe which is wet with the composition when it is applied to the human skin.

There is *no teaching* whatsoever in Lucas et al. that the disclosed composition should or can be incorporated into a disposable absorbent article.

Applicant respectfully refers to M.P.E.P. Section 2143.01, which specifically provides that "the prior art must suggest the desirability of the claimed invention," and that "the proposed modification cannot render the prior art unsatisfactory for its intended purpose" (citations omitted). It is respectfully maintained that the *references themselves* clearly fail to teach or suggest modification of the Lucas et al. teachings as suggested by the Examiner. It is acknowledged by the Examiner that *none of the cited references* teach or suggest treatment of a constituent component of a disposable absorbent article, much less the treatment of a dispersing or transfer layer of such an article. Rather, the principal Lucas et al. reference *teaches away* by its disclosure of a formulation *applied to the skin*. Clearly, nothing in this reference, or the other art of record, suggests that such a formulation should be applied to an

inner layer of a disposable absorbent article, which *does not contact the wearer's skin*.

As specifically noted in M.P.E.P. Section 2143.01, "the proposed modification cannot change the principle of operation of a reference."

It is respectfully maintained that the Lucas et al. reference is further deficient in teaching or suggesting applicant's invention as claimed, in that Lucas et al. is specifically limited in its teachings to the control of odor through use of a sequestrant, i.e., uncomplexed cyclodextrin. Again, there is *no teaching* of employing an aliphatic acid carrier for shifting pH as claimed.

As noted by the Examiner, Lucas et al. contemplates the use of citric acid in its formulation. However, each of the three examples set forth in Lucas et al. employ but *0.03 weight percent* of citric acid, in a formulation wherein in excess of 90% of the formulation is *distilled water*. Clearly, there is no discussion in Lucas et al. of effecting a pH shift, since such relatively minute quantities of citric acid cannot meaningfully shift the pH of the hydroxidiphenyl ether environment, as specifically contemplated by applicant's claimed formulation.

The deficiencies in the teaching of the principal Lucas reference, which teachings are *critical to the Examiner's rejection*, is further evidenced by the examples in Lucas et al., as follows:

Example IV

A man is *cooking fish and a spicy sauce* requiring the dicing of garlic, onion, and various peppers. He is told that his hands and hair smell of these food odors and he wants to remove these odors from his body. The man rubs his hands and hair with wipes containing the

composition in Example 1. The man notices less odor after using the wipes.

Example V

A woman finds that after she *smokes a cigarette* during a break at work, her hands and face smell of smoke and tobacco. She applies the composition from EXample II via a hand-held trigger-spray bottle. She sprays the composition on her face and hands and the composition removes the residual smoke and tobacco odors she found so disagreeable. This woman notices less odor and feels more comfortable returning to her desk after using the spray.

Example VI

A man, on his way to an important meeting, stops to buy *gasoline for his car*. As he is filling the gas tank, gasoline splashes on his hands. The man wipes his hands on a paper towel but the gasoline odor remains on his hands. The man removes a small bottle from his gym bag which contains the composition of Example III. He opens the bottle and pours some of the composition on his hands. He then smells his hands and notices that the gasoline odor is no longer present.

Clearly, when the Examiner states that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the compound of Lucas to a substrate to subsequently be formed into a disposable sanitary product," this is simply ignoring the thrust of the teachings of Lucas et al., which *is not* concerned with odor control in a disposable sanitary product. As such, it is respectfully maintained that the present claims are clearly patentably distinct from the Lucas et al. reference, even with consideration of the secondary Jungermann et al. and Chou et al. references. Only applicant recognized the desirability of incorporating her claimed odor-control composition on a substrate of a disposable absorbent article in the form of a dispersing layer, where such

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composition effects a pH shift for protonation of ammonia. This is simply clearly beyond any teachings or suggestions in the Lucas et al. reference, and accordingly, it is respectfully maintained that the present claims are in condition for formal allowance.

In view of the foregoing, allowance of pending claims 1, 2, and 5-8 is believed to be in order and is respectfully solicited. Should the Examiner wish to speak with applicant's attorneys, they may be reached at the number indicated below.

The Commissioner is hereby authorized to charge any additional fees which may be required in connection with this submission to Deposit Account No. 23-0785.

Respectfully submitted,

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I hereby certify that this paper is being deposited with the United States Postal Service with sufficient postage at First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on **June 9, 2004**.


